

REMARKS

Election/Restrictions

The Applicants hereby provisionally elect Group I, claims 1, 6-33, 71-75, and 84-85, drawn to a method of making catalytic antibodies using a covalently reactive transition state antigen (pCRA of formula1) analog where component L in the pCRA is an amino acid residue, with traverse.

Traversal Request

Applicants respectfully request that Groups numbered 1 to 32 be rejoined into a single Group. The individual Groups 1-32 as stated were created under PCT Rule 13.2 based on prior art (Taguchi et al Biorg med. Chem.. 2002, 12, 3167-3170) teaching the special technical feature linking the pCRA and pCRAW antigens. Applicants respectfully note that the special technical feature linking Groups 1-32 is the conformational flexibility of the pCRA and pCRAW antigens. This unifying special technical feature is essential for coordinated alignment of the electrophilic and noncovalent binding sites of the antigens, respectively, with the complementary nucleophilic and noncovalent binding sites of the antibody (see, for example, paragraph 10, Background of the Invention). The prior art does not teach this unifying special technical feature. Taguchi et al. teaches only a small peptide antigen in which the electrophile is located at the C terminus, a location that does not allow optimally coordinated alignment between the interacting subsites of antigen and antibody. For this reason, the present invention is useful to prepare new and improved pCRA and pCRAW antigens corresponding to a varied group of

large and small molecules, including antigens containing an amino acid, a sugar residue, a fatty acid residue or a nucleotide.

The inventive concept in the claims identified in Groups I-32 is that the Y'-Y''-Y component contains a flexible electrophile Y that forms a full or partial covalent bond with the nucleophile of the antibody. This reaction is coordinated with noncovalent binding between the antibody and the antigenic determinant. The identity and structure of the noncovalent binding site in the antigenic determinant can be changed at will without compromising the inventive concept. The ligand components L1...Lx...Lm and Lx-L' simply identify components of the antigenic determinant available for noncovalent binding, no matter whether these components are composed of amino acids, sugars, fatty acids or nucleotides. A prior art search would necessitate searching the electrophilic Y'-Y''-Y component regardless of the structure of L1...Lx...Lm and Lx-L'. Accordingly, Applicant respectfully requests that Groups I-32 be examined together.

This is intended to be a complete response to the Restriction Requirement mailed May 2, 2008. If any issues remain outstanding, the Examiner is respectfully requested to telephone the undersigned attorney of record for immediate resolution.

Respectfully submitted,

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